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(54) Abstract Title

Cutter element adapted to withstand tensile stress

(57) A cutter element (62) having a substantially flat wear face and leading (64) and trailing (66) sections, wherein the leading section (64) is sharper than the trailing section (66). Sharpness is defined as either a smaller inside angle at the intersection of a pair of planes or as a smaller radius of curvature. The insert of the present invention experiences reduced stress on its trailing portion and therefore is less subject to extreme wear and failure. The present invention can be applied with particular advantage to heel row cutters, but can also be applied to cutters in other rows that primarily ream the borehole wall. The present cutter element can be constructed so as to have either a positive or negative rake angle at its leading section, or to have any of a variety of shapes, depending on the characteristics of the formation in which it is to be used.

